

IN THE CLAIMS

1. (cancelled) An underwater sound source which comprises:

a housing having an inner and an outer surface, the housing being adapted to receive fluid therein to form a fluid column inside the housing; and

a monopole driver suspended within the housing, the underwater sound source resonating when the monopole driver excites the fluid column.

2. (cancelled) The underwater sound source according to claim 1 wherein the underwater sound source resonates at a frequency within the range of 200 to 1000Hz.

3. (cancelled) The underwater sound source according to claim 2 wherein the underwater sound source resonates at a frequency of about 260 Hz.

4. (cancelled) The underwater sound source according to claim 1 wherein the monopole driver is a spherical monopole.

5. (cancelled) The underwater sound source according to claim 4 wherein the housing is cylindrical and has a center, the monopole driver being positioned within the center of the housing.

6. (cancelled) The underwater sound source according to claim 5 wherein the housing has a length of 2.0 meters.

7. (cancelled) The underwater sound source according to claim 6 which further comprises an electronics module.

8. (cancelled) The underwater sound source according to claim 7 wherein the electronics module is positioned on the outer surface of the housing.

9. (cancelled) The underwater sound source according to claim 8 wherein the monopole has an electro-acoustic conversion efficiency of about 50%.

10. (cancelled) The underwater sound source according to claim 9 wherein the housing is a steel free-flooded pipe.

11. (cancelled) The underwater sound source according to claim 10 wherein the fluid is seawater.

12. (cancelled) The underwater sound source according to claim 6 which further comprises:

means for positioning the spherical monopole within the center of the housing.

13. (cancelled) The underwater sound according to claim 12 wherein the housing has an inner surface and the means for positioning comprises:

a support secured to the inner surface;

at least one spoke extending from the support towards the center of the housing, the member being secured to the spherical monopole.

14. (cancelled) The underwater sound source of claim 13 wherein the support is a ring support having a perimeter.

15. (cancelled) The underwater sound source according to claim 14 which further comprises:

at least four equally spaced spokes attached to the ring support and extending from the support toward the center of the housing, the spokes being secured to the spherical monopole.

16. (cancelled) The underwater sound source according to claim 15 wherein the housing has an equatorial plane, the ring support, spokes, and spherical monopole being positioned in the equatorial plane.

17. (cancelled) An underwater sound source which comprises:

a housing having an inner and an outer surface, the housing being adapted to receive fluid therein to form a fluid column inside the housing; and

a monopole driver suspended within the housing, the fluid column being excited when the monopole driver is actuated.

18. (new) An underwater sound source which comprises:

a housing having a length L along its longitudinal axis, the length L being perpendicular to a plane which bisects the housing, the housing being adapted to receive fluid therein to form a fluid column inside the housing; and

a monopole driver positioned within the plane and inside the housing, the underwater sound source resonating when the monopole driver excites the fluid column.

19. (new) The underwater sound source according to claim 18 wherein the underwater sound source resonates at a frequency within the range of 200 to 1000Hz.

20. (new) The underwater sound source according to claim 19 wherein the underwater sound source resonates at a frequency of about 260 Hz.

21. (new) The underwater sound source according to claim 18 wherein the monopole driver is a spherical monopole.

22 (new) The underwater sound source according to claim 21 wherein the housing is cylindrical.

23. (new) The underwater sound source according to claim 22 wherein length L is about 2.0 meters.

24. (new) The underwater sound source according to claim 18 which further comprises an electronics module.

25. (new) The underwater sound source according to claim 24 wherein the electronics module is positioned on the outside of the housing.

26. (new) The underwater sound source according to claim 21 wherein the monopole driver has an electro-acoustic conversion efficiency of about 50%.

27. (new) The underwater sound source according to claim 22 wherein the housing is a steel pipe.

28. (new) The underwater sound source according to claim 27 wherein the fluid is seawater.

29. (new) The underwater sound source according to claim 22 which further comprises:
means for positioning the spherical monopole within the plane and inside the housing.

30. (new) The underwater sound according to claim 29 wherein the housing has an inner surface and the means for positioning comprises:

a support secured to the inner surface;

at least one spoke extending from the support, the member being secured to the spherical

monopole.

31. (new) The underwater sound source of claim 30 wherein the support is a ring support having a perimeter.

32. (new) The underwater sound source of claim 31 which further comprises:

at least four equally spaced spokes attached to the ring support, the spokes being secured to the spherical monopole.

33. (new) An underwater sound source which comprises:

a housing having a length L along its longitudinal axis, the length L being perpendicular to a plane which bisects the housing, the housing being adapted to receive fluid therein to form a fluid column inside the housing; and

a monopole driver positioned within the plane and inside the housing, the fluid column being excited when the monopole driver is actuated.